UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,048	05/03/2001	John E. McGunnigle	102088-0001	5582

24267 7590 01/11/2007

CESARI AND MCKENNA, LLP
88 BLACK FALCON AVENUE
BOSTON, MA 02210

EXAMINER	
DAO, MINH D	
ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/848,048	MCGUNNIGLE, JOHN E.	
	Examiner	Art Unit	
	MINH D. DAO	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/18/06with respect to the rejection(s) of claim(s) 1,7,8,14 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Cantwell (US 5,917,827).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Henry (5,590,396) in view of Cantwell (US 5,917,827).

Regarding claim 1, Henry teaches a microwave communication network that overlays a public switched telephone network comprising (See figure 1; also see col. 3, lines 59-67 and col. 4, lines 1-19):

a plurality of microwave transceivers (Figure 1, item108A, 108B; In addition, items 108A and 108B each inherently includes a transceiver in order transmit and receive information) forming a microwave network (Figure 1, items 107,110, 113, 114 108A, 108) which overlays the public switched telephone network (Figure 1, items 105), the transceivers being geographically located so as to provide a wireless interoffice facility (IOF) between two or more central offices, tandem switches or other premises controlled by an incumbent local exchange carrier (ILEC) (Figure 1, items 107 via microwave link 108). However, Henry does not disclose that the wireless interoffice facility is for carrying all types of traffic normally carried by the PSTN. Cantwell, in an analogous art, teaches interoffice trunks between two inter-exchange tandem switches using transmission technologies such as satellite, **microwave**, coaxial or fiber optic systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the above teaching of Cantwell to Henry in order for the combined system to support different interface signals in different formats without having to replace or upgrade existing switching equipment as taught by Cantwell (see col. 2, lines 34-38).

Regarding claim 2, the combination of Henry and Cantwell teaches the microwave communication network as in claim 1 wherein one or more of the microwave transceivers is located proximate to one or more of the central offices, tandem switches or other premises (See Henry, figure 1, the link between items 108A(microwave facility) and 107(MTSO)).

Regarding claim 3, the combination of Henry and Cantwell teaches the microwave communication network as in claim 1 wherein the ILEC provides insufficient wireline bandwidth between two or more of the central offices, tandem switches or other premises, and the microwave network provides wireless bandwidth as an alternative communication path (see Cantwell, col. 1, lines 16-57).

Regarding claim 4, the combination of Henry and Cantwell teaches that the microwave communication network as in claim 1 wherein the wireless IOF provides redundancy to the public switched telephone network (see Henry, Figure 1, links 117 and 108; col. 4, lines 8-12).

Regarding claim 5, the combination of Henry and Cantwell also teaches that the microwave communication network as in claim 1 wherein the wireless IOF provides bandwidth at a lower cost than the public switched telephone network (see Cantwell, col. 1, lines 16-57). It is also well known to one of ordinary skill in the art that the cost of providing wireless service in general is less than the cost to build up a wireline network.

Regarding claim 6, the claim is interpreted the same as claim 5, therefore is rejected for the same reason set forth in claim 5.

Regarding claim 7, the combination of Henry and Cantwell teaches a method of providing wireless bandwidth in a microwave network (see Henry, figure 1, items 107,110,114,106,108A, 108) which overlays a public switched telephone network (see Henry , figure 1, items 105) comprising the steps of (see Henry , figure 1, and it is also well known in the art that the microwave link 108 should operate within the FCC allocated wireless bandwidth):

(1) forming a microwave network from a plurality of microwave transceivers (see Henry , Figure 1, item108A, 108B; In addition, items 108A and 108B each obviously includes a transceiver in order transmit and receive information); the microwave network overlaying the public switched telephone network (see Henry, figure 1; also see col. 3, lines 59-67 and col. 4, lines 1-19);

(2) geographically arranging the transceivers so as to provide wireless interoffice facility (1017) between two or more central offices, tandem switches or other premises controlled by an incumbent local a change carrier (ILEC) (see Henry , Figure 1, items 107 via microwave link 108). However, Henry does not disclose that the wireless interoffice facility is for carrying all types of traffic normally carried by the PSTN. Cantwell, in an analogous art, teaches interoffice trunks between two inter-exchange tandem switches using transmission technologies such as satellite, **microwave**, coaxial or fiber optic systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the above teaching of Cantwell to Henry in order for the combined system to support different interface signals in

different formats without having to replace or upgrade existing switching equipment as taught by Cantwell (see col. 2, lines 34-38).

Regarding claim 8, Henry teaches a microwave communication network that overlays a public switched telephone network comprising (See figure 1; also see col. 3, lines 59-67 and col. 4, lines 1-19): a plurality of microwave transceivers (Figure 1, item108A, 108B; In addition, items 108A and 108B each inherently includes a transceiver in order transmit and receive information) forming a microwave network (Figure 1, items 107,110, 113, 114 108A, 108) which overlays the public switched telephone network (Figure 1, items 105), the transceivers being geographically located to provide a wireless interoffice facility (IOF) between one or more central offices, tandem switches or other premises controlled by an incumbent local exchange carrier (ILEC) (Figure 1, items 107 via microwave link 108) and one or more central offices, tandem switches or other premises controlled a common carrier other than the (ILEC) (Figure 1, items 103,102). However, Henry does not disclose that the wireless interoffice facility is for carrying all types of traffic normally carried by the PSTN. Cantwell, in an analogous art, teaches interoffice trunks between two inter-exchange tandem switches using transmission technologies such as satellite, **microwave**, coaxial or fiber optic systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the above teaching of Cantwell to Henry in order for the combined system to support different interface signals in different formats without

having to replace or upgrade existing switching equipment as taught by Cantwell (see col. 2, lines 34-38).

Regarding claim 9, the combination of Henry and Cantwell teaches that the microwave communication network as in claim 8 wherein one or more of the microwave transceivers is located proximate to one or more of the central offices, tandem switches or other premises (See Henry, figure 1, the link between items 108A(microwave facility) and 107(MTSO)).

Regarding claim 10, the claim is interpreted the same as claim 3, therefore is rejected for the same reason set forth in claim 3.

Regarding claim 11, the combination of Henry and Cantwell teaches that the microwave communication network as in claim 8 wherein the wireless IOF provides redundancy to the public switched telephone network (See Henry , Figure 1, links 117 and 108; col. 4, lines 8-12).

Regarding claim 12, the combination of Henry and Cantwell teaches that the microwave communication network as in claim 8 wherein the wireless IOF provides bandwidth at a lower cost than the public switched telephone network (see Cantwell, col. 1, lines 16-57). It is also well known to one of ordinary skill in the art that the cost of providing wireless service in general is less than the cost to build up a wireline network.

Regarding claim 13, the claim is interpreted the same as claim 12, therefore is rejected for the same reason set forth in claim 12.

Regarding claim 14, Henry teaches a method of providing wireless bandwidth in a microwave network (figure 1, items 107,110,114,106,108A,108) which overlays a public switched telephone network (figure 1, items 105) comprising the steps of (See figure 1, and it is also well known in the art that the microwave link 108 should operate within the FCC allocated wireless bandwidth):

(1) forming a microwave network from a plurality of microwave transceivers (Figure 1, item108A, 108B; In addition, items 108A and 108B each inherently includes a transceiver in order transmit and receive information); the microwave network overlaying the public switched telephone network (See figure 1; also see col. 3, lines 59-67 and col. 4, lines 1-19);

(2) geographically arranging the transceivers so as to provide wireless interoffice facility (1017) between two or more central offices, tandem switches or other premises controlled by an incumbent local a change carrier (ILEC) (Figure 1, items 107 via microwave link 108) and one or more central offices, tandem switches or other premise controlled by a common carrier other than the ILEC (figure 1, items 103,102). However, Henry does not disclose that the wireless interoffice facility is for carrying all types of traffic normally carried by the PSTN. Cantwell, in an analogous art, teaches interoffice trunks between two inter-exchange tandem switches using transmission technologies

such as satellite, **microwave**, coaxial or fiber optic systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the above teaching of Cantwell to Henry in order for the combined system to support different interface signals in different formats without having to replace or upgrade existing switching equipment as taught by Cantwell (see col. 2, lines 34-38).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D. DAO whose telephone number is 571-272-7851. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW ANDERSON can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Minh Dao
AU 2618
January 05, 2007

Matthew Anderson
Superviser AU 2618